

REMARKS

Claims 1-28, 33-60, and 97-116 are pending in the application. Claims 1, 13, 33, 45, and 97 have been amended, and Claims 29-32 and 61-96 were previously canceled. Applicant respectfully requests reconsideration of the pending claims in view of the following remarks.

Claim Rejections – 35 U.S.C. § 112

The Examiner rejected Claims 1, 13, 15, 23, 24, 33, 97, 101, and 112 under 35 U.S.C. § 112, first paragraph because the claims contain subject matter which was not described in the specification in such a way to indicate that the inventor(s) had possession of the claimed invention. The Examiner indicated that the phrase “automatically modifying the weight of at least one of the plurality of rules based on the result” is not disclosed in the specification.

Applicant respectfully disagrees. As noted in paragraph 43 of the Applicant’s published application 2005/0216397, the adaptive adjustment process, which includes modifying the weight of a rule, is performed in a substantially real time and online manner. Then, in paragraph 45, it is disclosed that the adaptive adjustment process performs its operations for initializing and adapting weighting information in the rules databases. Paragraphs 46-49 continue to discuss the operation of the adaptive adjustment process as if its functions were automatically performed.

To further emphasize that the adaptive adjustment process is automatic, Applicant discussed at paragraphs 50-61 how the IHS receives commands from a human user and performs operations in response to the commands. Because Applicant distinguished the role of a human in the adaptive adjustment process, it is logical to infer that paragraphs 43-49, which describe the operation of the adjustment process without reference to human interaction are performed automatically by computer processes.

Accordingly, Applicant respectfully requests the Examiner to withdraw this rejection.

Claim Rejections – 35 U.S.C. § 101

The Examiner rejected Claims 1-28 and 97-116 under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

Applicant respectfully disagrees. According to the recent U.S. Court of Appeals for the Federal Circuit opinion in *In re Bilski*, the test to determine whether a process is patentable subject matter under 35 U.S.C. § 101 is whether the invention 1) is tied to a particular machine or apparatus; or 2) transforms a particular article into a different state or thing (the “machine-or-transformation” test). As noted in the preamble of independent Claims 1 and 13, the claimed

invention is tied to an information handling system, which is described in the specification in paragraphs 16-22. Similarly, Claim 97 has been amended to indicate that the method is performed by a computer processor. Therefore, Claims 1-28 and 97-116 include statutory subject matter in accordance with 35 U.S.C. § 101.

Accordingly, Applicant respectfully requests the Examiner to withdraw this rejection.

Claim Rejections – 35 U.S.C. § 103

The Examiner rejected Claims 1-28, 33-60, and 97-116 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent Application Publication No. 2002/0099649 ("Lee") in view of U.S. Patent Application Publication No. 2002/0161711 ("Sartor").

Lee does not disclose the subject matter of amended independent Claim 1. More specifically, Lee does not disclose a method performed by an information handling system ("IHS") for determining whether a financial transaction request is likely to be fraudulent, the method comprising at least the following elements:

- (a) applying a plurality of rules to the first financial transaction request to activate a subset of the rules based on the information in the first financial transaction request, each of the plurality of rules having a predetermined weight;
- (b) determining a first score by calculating a sum of the weights of the activated rules and applying a mathematical formula to the sum;
- (c) determining a first indication of whether the first financial transaction request is likely to be fraudulent based on the first score;
- (d) transmitting the first indication to the provider to accept or deny the first financial transaction;
- (e) accessing an actual outcome of the first financial transaction request to determine a result indicating whether the first indication was correct based on the actual outcome; and
- (f) automatically modifying the weight of at least one of the plurality of rules based on the result.

Rather, Lee discloses a system 100 including a merchant website 103 and a scoring system 114. The merchant website 103 includes an order fulfillment system 102 that receives incoming orders 121 via the Internet from client computer 116. The order fulfillment system 102 forwards orders to be processed to a rule engine 112. The rule engine 112 forwards this information to the scoring system 114 as a scoring request. Para. 64.

The scoring system 114 analyzes the provided information in the scoring request and estimates the likelihood that the transaction is fraudulent. In generating this estimate, the

scoring system 114 matches information about the purchaser derived from the scoring request with information about other transactions that are most likely made by the same purchaser elsewhere to obtain an overall profile of the purchaser's historical buying behavior. Para. 65.

The scoring system 114 includes multiple servers operating in parallel to ensure high speed scoring of transactions from many vendors. Para. 67. The scoring system 114 includes one or more predictive models of fraudulent transactions. The profiles of the purchaser and the current transaction information are input into the predictive models to produce the estimated likelihood of fraud. Para. 66. The estimation, in the form of a fraud score, reasons for the score, special situation reports, and rules exceptions is returned to the merchant's rule engine 112. Para. 66.

The rule engine 112 implements various rules 108 that establish its policies for dealing with fraudulent or potentially fraudulent transactions. Para. 68. Given the fraud score for the transaction, the merchant's rule engine 112 performs various actions such as accept order, reject order, etc. Paras. 69-74.

The merchant defines the rules 108 that apply the various actions as desired, based on the fraud score. The rules 108 are defined and updated using a policy management workstation (PMW) 110. The PMW allows the merchant to write policies formulated as computations rules that become active within the rule engine 112, integrating a real-time decision making process into the merchant's order fulfillment system 102. The PMW allows the merchant to define, edit, and delete any rules it desires. The use of the rules enable the merchant's fraud-risk prediction system to automatically determine actions based on the fraud scores, order data and information from external sources, and to incorporate information from the negative files that the merchant may have already accumulated. The use of the rules 108 releases the merchant from the limitations of using a binary Yes or No to determine the action to take on the fraud score. Para. 75.

First, in Lee, the rules of the rule engine 112 are not applied until after the fraud score is generated by the scoring system 114. However, assuming for the sake of argument that the profiles obtained by the scoring system 114 are rules, Lee still does not disclose all the elements of independent Claim 1.

Lee does not disclose "applying a plurality of rules to the first financial transaction request to activate a subset of the rules based on the information in the first financial transaction request, each of the plurality of rules having a predetermined weight." There is simply no indication in Lee that the scoring system 114 activates a subset of the rules stored in the scoring system where each of the rules has a predetermined weight. When a scoring request is

received by the scoring system, the current transaction information, and the profile information, and the contrast measures are input to the scoring model 316 for scoring. Paras. 117-127. Although paragraph 127 of Lee indicates that certain profiles can be selected based on their contrast measure, the profiles do not have a predetermined weight before the current transaction information is received by the scoring system 114.

Lee also does not disclose "determining a first score by calculating a sum of the weights of the activated rules and applying a mathematical formula using the sum." Lee utilizes a statistical model to determine the fraud score. It appears that Lee is absent of further discussion regarding the specifics of the statistical model used in the scoring system 114.

Lee also does not disclose "determining a first indication of whether the first financial transaction request is likely to be fraudulent based on the first score" and "transmitting the first indication to the provider to accept or deny the first financial transaction." As claimed, the first indication is something other than the fraud score and is determined before the first indication is transmitted back to the provider. The scoring system 114 only generates a score and transmits the score back to the merchant to apply the score to the rules engine 112 to determine whether to accept the current transaction. Furthermore, Lee specifically states in paragraph 75, "[T]he use of the rules 108 releases the merchant from the limitations of using a binary Yes or No to determine the action to take on the fraud score."

Sartor does not cure the deficiencies of Lee. Sartor does not disclose a method performed by an information handling system ("IHS") for determining whether a financial transaction request is likely to be fraudulent, the method comprising at least the following elements:

- (a) applying a plurality of rules to the first financial transaction request to activate a subset of the rules based on the information in the first financial transaction request, each of the plurality of rules having a predetermined weight;
- (b) determining a first score by calculating a sum of the weights of the activated rules and applying a mathematical formula to the sum;
- (c) determining a first indication of whether the first financial transaction request is likely to be fraudulent based on the first score;
- (d) transmitting the first indication to the provider to accept or deny the first financial transaction;
- (e) accessing an actual outcome of the first financial transaction request to determine a result indicating whether the first indication was correct based on the actual outcome; and

(f) automatically modifying the weight of at least one of the plurality of rules based on the result.

Rather, Sartor discloses a process 100 to provide fraud detection analysis for a particular event (e.g., e-commerce transaction order for goods via the Internet). Para. 12. The event is analyzed to determine whether this is the type of event for which the fraud detection analysis should be biased toward detecting more fraudulent activity, or should be biased toward reducing false positives. Para. 13. Based on the result of the analysis, an appropriate rule set is selected and applied to the event. Para. 14. Various rules in the rule set are applied to the event to score the event.

Sartor does not disclose that the rules of the rule set have predetermined weights. Nor does Sartor disclose that the score is determined by calculating a sum of the weights of the activated rules and applying a mathematical formula to the sum. In addition, there is no disclosure in Sartor of "accessing an actual outcome of the first financial transaction request to determine a result indicating whether the first indication was correct based on the actual outcome" and "automatically modifying the weight of at least one of the plurality of rules based on the result."

For at least these reasons, Lee and Sartor do not disclose the subject matter of amended independent Claim 1. Accordingly, independent Claim 1 is allowable. Claims 2-12 depend from Claim 1 and are allowable for at least the reasons Claim 1 is allowable. Claims 2-12 may include additional patentable subject matter for reasons not discussed herein.

Similar rationale also can be applied to amended independent Claims 13, 33, 45, and 97 and dependent Claims 14-28, 34-44, 46-60, and 98-116 that depend from Claims 13, 33, 45, and 97, respectively. Claims 14-28, 34-44, 46-60, and 98-116 may include additional patentable subject matter for reasons not discussed herein. Consequently, for at least the reasons set out above, Claims 1-28, 33-60, and 97-116 are allowable.

CONCLUSION

In view of the foregoing, entry of this Amendment and allowance of the pending claims are respectfully requested. The undersigned is available for telephone consultation during normal business hours.

Respectfully submitted,

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